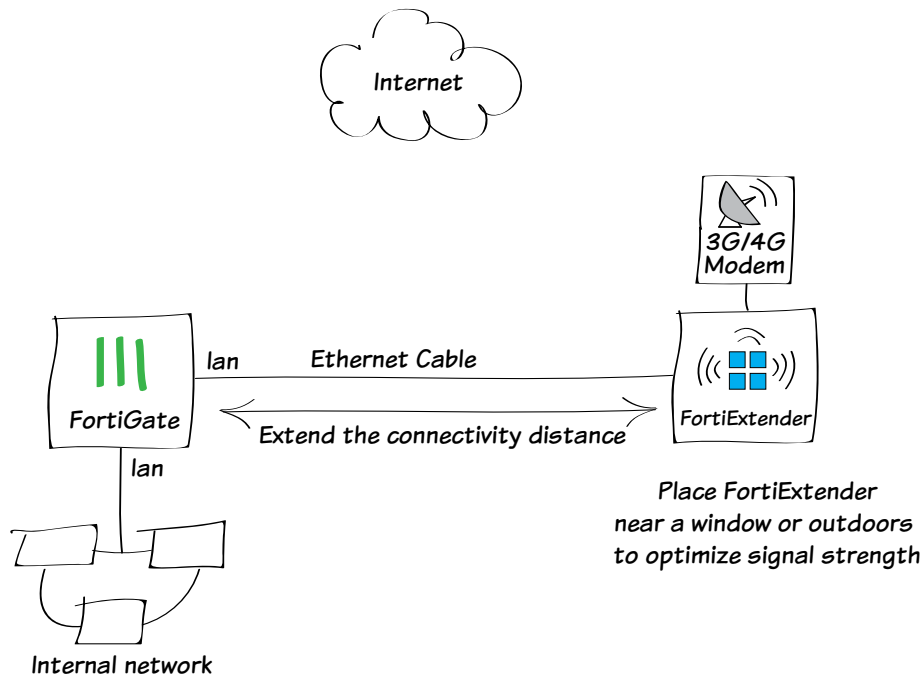


Setting up an Internet connection through a FortiGate unit using a 3G/4G modem and a FortiExtender

This example shows how to set an internet connection using a 3G/4G modem and a FortiExtender. A FortiExtender is used when the FortiGate unit is located in an area without 3G/4G network coverage, the FortiExtender can be placed near a window or outdoors.

1. Installing the 3G/4G modem in the FortiExtender
2. Connecting the FortiExtender
3. Configuring the FortiExtender
4. Modem settings
5. Configuring the FortiGate
6. Results



1. Installing the 3G/4G modem in the FortiExtender

Remove the housing cover of the FortiExtender and use the provided USB extension cable to connect your 3G/4G modem to the device.

For more information on installing the 3G/4G modem, see the QuickStart Guide.



2. Connecting the FortiExtender

Use an Ethernet cable to connect the FortiExtender to the **lan** interface of a FortiGate unit.

Once connected, FortiGate can control FortiExtender and modem.

Enable FortiExtender in the FortiGate's CLI

CAPWAP service must be enabled on the port to which FortiExtender is connected, **lan** interface in this example.

```
config system global
    set fortiextender enable
    set wireless-controller enable
end

config system interface
    edit lan
        set allowaccess capwap
    end
```

Once enabled, it appears as a virtual WAN interface in the FortiGate, such as **fext-wan1**. Go to **System > Network > Interface** to verify **fext-wan1** interface.

lan	Hardware Switch (16)
fext-wan1	FortiExtender

3. Configuring the FortiExtender

Go to **System > Network > FortiExtender** and authorize the FortiExtender.

Primary	
Serial Number	FX100B3X14000077
Administrative Status	Deauthorized [Authorize]

Once authorized, you can see the status of the FortiExtender.

Primary

Serial Number	FX100B3X14000077
Model	FX100B
Administrative Status	🟢 Authorized [Deauthorize]
Link Status	🟢 Up [Details]
MAC Address	8:5b:e:5b:71:d0
IP Address	192.168.1.100
OS Version	FX100B-v1.0-build024 [Upgrade]
Network	📶 N/A

Data Usage

Current Usage

653.22 KB of 653.22 KB (100.00%)

Last Month Usage

0 B of 0 B (0.00%)

[Configure Settings](#) [Diagnostics](#)

4. Modem settings

The FortiExtender unit allows for two modes of operation for the modem; On Demand and Always Connect.

Go to **System > Network > FortiExtender** and click on **Configuring Settings**.

Select **Always Connect** for **Dial Mode** and keep other settings to default.

Settings for FX100B3X14000077 - Primary

▼ **Modem Settings**

Dial Mode

☐ On Demand ☒ Always Connect

Redial Limit

0

Quota Limit (MB)

0

▼ **PPP Authentication**

Username

Password

••••••••

Authentication Protocol

auto

▶ **General**

▶ **GSM / LTE**

▶ **CDMA**

5. Configuring the FortiGate

Go to **Router > Static > Static Routes** and add new route through **fext-wan1** interface.

Destination IP/Mask	<input type="text" value="0.0.0.0/0.0.0.0"/>
Device	<input type="text" value="fext-wan1"/>
Gateway	<input type="text" value="0.0.0.0"/>
Distance	<input type="text" value="5"/> (1-255, Default=10)
Priority	<input type="text" value="0"/> (0-4294967295)
Comments	<input type="text" value="Write a comment..."/>

Go to **Policy & Objects > Policy > IPv4** and create a new security policy allowing traffic from **lan** interface to **fext-wan1** interface.

Incoming Interface	<input type="text" value="lan"/>	
Source Address	<input type="text" value="all"/>	
Source User(s)	<input type="text" value="Click to add..."/>	
Source Device Type	<input type="text" value="Click to add..."/>	
Outgoing Interface	<input type="text" value="fext-wan1"/>	
Destination Address	<input type="text" value="all"/>	
Schedule	<input type="text" value="always"/>	
Service	<input type="text" value="ALL"/>	
Action	<input type="text" value="ACCEPT"/>	

Firewall / Network Options

☒ NAT

☒ Use Destination Interface Address

☐ Fixed Port

☐ Use Dynamic IP Pool

☐ Use Central NAT Table

☐ Web Cache☐ WAN Optimization

6. Results

Browse the Internet and go to **Policy & Objects > Policy > IPv4** to verify the **Count**.

Seq.#	ID	Source	Destination	Count
ike-bgp-fgt1 - lan (1 - 1)				
4	8	all	all	0 Packets / 0 B
lan - fext-wan1 (2 - 2)				
6	9	all	all	8,441 Packets / 2.19 MB
lan - ike-bgp-fgt1 (3 - 3)				
3	7	all	all	0 Packets / 0 B
lan - wan1 (4 - 4)				
5	10	all	all	974,394 Packets / 664.12 MB

Go to **Log & Report > Traffic Log > Forward Traffic**.

You can see that traffic flowing from **lan** interface to **fext-wan1** interface.

Date...	Policy ...	Src Interface	Dst Interface
15:38:03	9	lan	fext-wan1
15:37:47	9	lan	fext-wan1
15:37:43	9	lan	fext-wan1
15:37:39	9	lan	fext-wan1
15:37:35	9	lan	fext-wan1
15:37:31	9	lan	fext-wan1
15:37:19	9	lan	fext-wan1
15:37:07	9	lan	fext-wan1

Select an entry for details

Action	ip-conn	Date/Time	15:35:51 (1405006551)
Destination	10.10.80.25	Dst Interface	fext-wan1
Dst Port	161	Level	warning <div><div></div><div></div><div></div><div></div></div>
Log ID	11	Policy ID	9
Security Events		Sent / Received	N/A / N/A
Sequence Number	10016	Source	192.168.1.101
Src Interface	lan	Src Port	56442
Sub Type	forward	Threat	262144
Threat Score	1375731722	Timestamp	7/10/2014, 3:35:51 PM
Virtual Domain	root		